

## ABSTRACT

In an end to end fully internet protocol (IP) enabled network, a dynamic IP address space is used to address mobile hosts in order to facilitate mobility management. The network includes a wireless mobile network having a plurality of base stations each being associated with a portion of the dynamic IP address space. The base stations are operative to allocate dynamic IP addresses from the associated portion of the dynamic IP address space for each authenticated mobile host. Each of the base stations provides translation between the dynamic IP address space and a permanent IP address space so that the dynamic IP address space is transparent from the point of view of the mobile hosts. A gateway provides communicative coupling between the backbone of the wireless mobile network and a wire lined IP network. The gateway also provides translation between the dynamic IP address space and the permanent IP address space.